

**BELT FOR A BAG****BACKGROUND OF THE INVENTION****1. Field of the Invention**

5 The invention relates to a belt for attachment to a fishbasket, a bag for storing fishing tackles, a bucket for storing bait, a fishing reel case, etc., and to a fishing bag equipped with a shoulder belt.

**2. Description of the Related Art**

10 It is known in the art to provide a fishing bag or container with a shoulder belt comprising a textile material made of synthetic resin fibers, or a shoulder belt made directly from a synthetic resin sheeting material. The shoulder belt comprising the textile material, when wet, can absorb water to result in  
15 discomfort during handling. Moreover, such a belt tends to be invaded by particles through its textile openings, and are easily soiled and picked by a fishing hook.

The conventional shoulder belts directly shaped from the synthetic resin sheeting materials tend to elongate  
20 and lose their original forms. Since the deformed belt cannot be restored to its original form, the belt cannot fit the body of the user.

Aside from the abovementioned shoulder belts, the prior art also provides a shoulder belt comprising an  
25 interior textile layer of synthetic resin fiber, and upper and lower exterior coverings made from a synthetic resin sheeting. However, the interior layer of such a

shoulder belt is not joined intimately with the exterior coverings, as it is inserted only between the exterior coverings. If the exterior coverings deform, the interior layer will not match the exterior coverings.

5 Therefore, when deforming of a shoulder belt having a synthetic resin fiber textile layer covered with exterior coverings of synthetic resin sheeting occurs, the original form of the shoulder belt cannot be restored, and the shoulder belt is unable to fit agreeably with  
10 the shoulder of the user.

#### **SUMMARY OF THE INVENTION**

Therefore, the main object of the present invention is to provide a belt that is strong, durable, resistant to deformation, and fits agreeably with the shoulder  
15 of the user.

Another object of the present invention is to provide a bag for fishing with a strong and durable belt.

According to one aspect of this invention, a belt for a bag comprises a mesh-like interior layer, and upper and lower exterior layers laminated with the interior layer for covering the interior layer. The interior layer  
20 includes a plurality of openings. The upper and lower exterior layers are interconnected through the openings, and are made of a plastic sheeting material.

25 According to another aspect of this invention, a fishing bag comprises a container and a belt attached to the container. The belt includes a mesh-like interior

layer, and upper and lower exterior layers laminated with the interior layer for covering the interior layer. The interior layer includes a plurality of openings. The upper and lower exterior layers are interconnected  
5 through the openings, and are made of a plastic sheeting material.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

Other features and advantages of the present invention will become apparent in the following detailed  
10 description of the preferred embodiments with reference to the accompanying drawings, of which:

Figure 1 is a perspective view of a fishing bag embodying the present invention;

Figure 2 is a top schematic view of the first preferred  
15 embodiment of a belt for the bag of Figure 1;

Figure 3 is a sectional view taken along line A-A of Figure 1;

Figure 4 is a sectional view taken along line B-B of Figure 2;

20 Figure 5 is a sectional view taken along line C-C of Figure 2;

Figure 6 is an exploded perspective view showing an interior layer and two exterior layers of the belt of Figure 2;

25 Figure 7 is a top schematic view of the second preferred embodiment of the belt according to the present invention;

Figure 8 is a sectional view of the third preferred embodiment of the belt according to the present invention;

5 Figure 9 is a sectional view of the fourth preferred embodiment of the belt according to the present invention;

Figure 10 is a perspective view of the fifth preferred embodiment of the belt according to the present invention; and

10 Figure 11 is a perspective view, illustrating another application of the fifth preferred embodiment.

#### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Before the present invention is described in greater detail, it should be noted that like elements are denoted  
15 by the same reference numerals throughout the disclosure.

As shown in Figures 1 to 6, a bag or bucket 10 for fishing is equipped with a belt 1 of the first embodiment of this invention, and has a box-like container body  
20 2. The container body 2 has a bottom wall portion 21 and four side wall portions 23. The container body 2 can be opened and closed by a lid body 24 serving as a top wall portion. The lid body 24 is attached to an upper edge portion of the container body 2 via hinge  
25 16.

A zipper 22 is provided for interconnecting surrounding edges of the lid body 24 and the container

body 2. Alternatively, another fastener which interconnects the lid body 24 and the container body 2 may be provided at a location opposite to the hinge 16 as a means for tightly holding the lid body 24 on the upper edge portion of the container body 2.

The belt 1 is attached to the bag 10 at the outside of the side wall portions 23 of the container body 2 via attachment parts 25. The belt 1 is extended through a shoulder holding member 26.

The belt 1 is composed of an interior layer 11 comprising a mesh body, and upper and lower exterior layers 12, 13 made from a synthetic resin sheeting material to cover upper and lower surfaces 112, 113 of the interior layer 11. The upper and lower exterior layers 12, 13 penetrate partly into the mesh body, and are interconnected and integrated through openings 114 in the mesh body. Thus, the interior layer 11 is embedded in the exterior layers 12, 13.

The interior layer 11 is formed as the mesh body having a plurality of openings 114 by respectively orienting a plurality of filaments in a longitudinal direction (Y) and a transverse direction (X). In particular, the interior layer 11 is, as clearly shown in Figure 2, formed by a plurality of the filaments 111a extending along the longitudinal direction (Y), and a plurality of the filaments 111b extending along the transverse direction (X), and has the openings 114 to permit the resin of

the upper and lower exterior layers 12, 13 to flow among the filaments 111a, 111b. Each of the filaments 111a, 111b comprises a synthetic resin selected from a group consisting of nylon, polyester, Kevlar (trade mark), carbon, glass, metal, and others.

On the other hand, the upper and lower exterior layers 12, 13 are formed of a more softer synthetic sheeting material, such as polyvinyl chloride or polyurethane. The exterior layers 12, 13 cover the upper and lower surfaces 112, 113 of the interior layer 11, and reinforce the belt 1 as they are interconnected integrally through the openings 114. Moreover, the exterior layers 12, 13 are water impermeable and thus do not absorb water.

Referring to Figures 3 to 5, each of the upper and lower exterior layers 12, 13 has a surface which is raised by the filaments 111a and 111b to form a plurality of convexes 121, 131 at locations where each of the upper and lower exterior layers 12, 13 extends over the filaments 111a and 111b. The surface further has concaves 122, 132 at locations where each of the upper and lower exterior layers 12, 13 penetrates into the openings 114. Since the surfaces of the exterior layers 12, 13 have convexes 121, 131 and concaves 122, 132, the surfaces have a relieved or embossed appearance. Accordingly, the surfaces of the exterior layers 12, 13 can prevent the belt 1 from sliding off the body of the user, and enable the belt 1 to be securely held on the shoulder

of the user. Moreover, the shoulder holding member 26 can also be prevented from moving undesirably along the belt 1.

5 The shoulder holding member 26, as shown in Figures 1 and 3, has a bottom portion 261, a pair of support bodies 262, and lower side openings 263 formed at positions of the bottom portion 261 corresponding to the support bodies 262. The belt 1 is exposed from the top between the support bodies 262. By holding and  
10 frictionally contacting the bottom portion 261 and inner surfaces of the support bodies 262 against the convexes 121, 131, sliding movement of the shoulder holding member 26 against the belt 1 may be prevented.

As shown in Figure 4, the belt 1 further has two  
15 opposite longitudinal edge portions 14, and an intermediate portion 15 between the edge portions 14. The thickness (W1) of the edge portions 14 is thicker than the thickness (W2) of the intermediate portion 15 so as to minimize wear of the belt 1. Preferably, the  
20 edge portions 14 are formed so as to curve upwardly. The filaments 111a, 111b of the mesh body of the interior layer 11 are not exposed at the edge portions 14 along the longitudinal direction (Y) of the belt 1.

If the plastic sheeting material of each exterior  
25 layer 12, 13 is transparent, the interior layer 11 is visible from the outside. Use of such transparent material is desirable from the point of outer appearance.

In case the surfaces of the exterior layers 12, 13 are colored so as to hide the upper and lower surfaces 112, 113 of the interior layer 11, the upper and lower surfaces 112, 113 of the interior layer 11 are covered with  
5 non-transparent synthetic resin. As such, enhanced appearance may be realized.

Figure 6 illustrates a method for producing the belt 1. Synthetic resin sheets forming the exterior layers 12, 13 are first placed over and under the upper and  
10 lower surfaces 112, 113 of the interior layer 11 comprising the mesh body so that the mesh body is sandwiched between the exterior layers 12, 13. Then, the exterior layers 12, 13 are heated and pressed together. As a result, the synthetic resin of the  
15 exterior layers 12, 13 penetrates into the openings 114 in the interior layer 11 so that the openings 114 in the interior layer 11 are filled with the molten resin. Thus, the exterior layers 12, 13 are interconnected integrally through the openings 114, and the belt 1  
20 having the mesh body embedded fixedly between the exterior layers 12, 13 is formed.

When pressing in such a molding procedure, it is preferable to press strongly the intermediate portion  
15 of the belt 1 so as to interconnect assuredly the portions close to the edge portions 14. The resin of the exterior layers 12, 13 is thus collected in the edge  
25 portions 14, such that the edge portions 14 are made



thicker as described above. In addition, it is preferable to bend the edge portions 14 upward during pressing.

If the interior layer 11 is formed only with the filaments 111a aligned in the longitudinal direction (Y), i.e., the mesh body is not formed, the filaments 111a may zigzag. However, if the interior layer 11 is formed by intersecting the filaments 111a, 111b to result in the mesh body, the filaments 111a, 111b are straight without being warped, and the strength of the belt 1 may be enhanced.

As illustrated above, the belt 1 has the interior layer 11 comprising the mesh body, and the exterior layers 12, 13 comprising the synthetic resin sheetings to cover the upper and lower surfaces 112, 113 of the interior layer 11. The upper and lower exterior layers 12, 13 are interconnected to each other through the openings 114. The interior layer 11 is embedded fixedly between the upper and lower exterior layers 12, 13. Therefore, the belt 1 is strong and resistant to deformation. Since the interior layer 11 does not slip from the exterior layers 12, 13, when using the bag 10 (see Figure 1), it is possible to maintain close fit between the belt 1 and the shoulder of the user.

Moreover, because the exterior layers 12, 13 are water impermeable and thus do not absorb water, the belt 1 can be easily grasped. In addition, since the exterior layers 12, 13 are made from synthetic resin sheets, they

are not likely to be hooked by a fishing hook, and dirt particles can be easily removed from the exterior layers 12, 13.

Figure 7 illustrates the second preferred embodiment of the belt 1 according to the present invention. In this embodiment, the interior layer 11 of the belt 1 has filaments 111a' and 111b' inclining in different directions with respect to the longitudinal direction (Y) of the belt 1 so as to form the mesh body. Even if the filaments 111a' and 111b' do not intersect each other at right angles, they can achieve the same effect as those described hereinabove in connection with the first preferred embodiment. It is not necessary to form the mesh body in a lattice pattern. As long as the belt 1 has the openings 114 which permit interconnection of the exterior layers 12, 13, the filaments 111a' and 111b' can be formed in any pattern other than the lattice pattern.

The third preferred embodiment of the belt 1 according to the present invention is shown in Figure 8. In this embodiment, the convexes 121 and the concaves 122 are formed solely on the surface of the upper exterior layer 12. The lower exterior layer 13 is formed with a substantially flat surface 133.

Figure 9 illustrates the fourth preferred embodiment of the belt 1 according to the present invention. In this embodiment, each of the filaments 111a and 111b

is formed by spinning a plurality of fibers. On the surfaces of the exterior layers 12, 13, the convexes 121, 131 are formed at locations where the filaments 111a and 111b intersect each other, and the concaves 122, 132 are formed between adjacent convexes 121, 131. Note that the synthetic resin of the exterior layers 12, 13 need not necessarily pass through spaces (not shown) among the spun fibers (not shown). However, if the synthetic resin of the exterior layers 12, 13 passes through the spaces among the fibers, the structural strength of the belt 1 is enhanced.

Since the filaments 111a and 111b which intersect each other are formed by spinning the plurality of fibers, the intersecting portions of the filaments 111a and 111b are fixed. Moreover, sliding movement between the exterior layers 12, 13 and the inner layer 11 is prevented, and the effect of reinforcing the belt 1 is enhanced.

Figures 10 and 11 illustrate other applications of the belt 1 according to this invention. In the previous example, the belt 1 is applied to the bag 10 for fishing, as shown in Figure 1. In Figure 10, the belt 1 is applied to a waist pouch 31 for fishing. The belt 1 is extended between a strip member 32 and the waist pouch 31, and is fastened around the waist of the user using a buckle 33 provided on both ends of the belt 1.

In Figure 11, the belt 1 is fastened around the waist of the user using the buckle 33, is extended through

a holding member 26, and is provided with a hanging member 34 that includes a metal fitting 35 where ropes for a fishing basket or a fish bait container can be attached. It is noted that the belt 1 can be applied to various equipment for fishing other than the bag. Furthermore, the belt 1 can be applied to equipments other than fishing equipments, such as a golf bag, etc. In short, the belt 1 can be applied to any bag for sports and leisure.

From the aforementioned description of the preferred embodiments of the belt 1 of the present invention, it is apparent that the belt 1 has high strength, does not lose its original form, fits comfortably the user's body, and is not easily damaged.

While the present invention has been described in connection with what is considered the most practical and preferred embodiments, it is understood that this invention is not limited to the disclosed embodiments but is intended to cover various arrangements included within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.